

Safe Water System

An Expanding International Partnership for Safe Drinking Water



*Woman in periurban community in Delhi treating water stored in SWS container with Safewater water treatment solution
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Woman in a remote village on the east coast of Madagascar with a bottle of Sur'Eau water treatment solution.

U.S. Department of Health
and Human Services
Centers for Disease Control
and Prevention
www.cdc.gov/safewater



The United States announced a partnership to bring safe drinking water to the world's poor at the World Summit on Sustainable Development in Johannesburg in August 2002. The Safe Water System (SWS) is an international partnership that reduces diarrheal diseases in children under 5 years old and other vulnerable populations through the provision of locally produced water disinfectant and safe water storage containers, and by advocating behavior change techniques that result in improved hygiene. The SWS uses local resources, typically involves public-private partnerships and a market-based approach, with strong NGO involvement, and employs community mobilization and social marketing approaches. At the time of the Summit, the SWS was available in 14 countries.

Since Johannesburg, the SWS has been introduced in Malawi; the national program in Madagascar has expanded to previously inaccessible, remote populations using innovative programs with local entrepreneurs; and the existing program in Kenya is expanding to national scale. Programs in Nigeria and Afghanistan will begin soon. Additionally, UNICEF, Population Services International, the Centers for Disease Control and Prevention (CDC) and the U.S. Agency for International Development (USAID) are actively exploring opportunities to expand access to the SWS and will continue this dialogue at the Third World Water Forum, inviting new partners to join the effort.

Responding to the Health Needs of the World's Poor

Following pilot efforts in Bolivia beginning in 1992, larger scale SWS projects have been initiated since 1997 in Latin America and the Caribbean (Bolivia, Peru, Ecuador, and Haiti), Africa (Zambia, Kenya, Madagascar, Uganda, Rwanda, Tanzania, and Malawi), and Asia (Pakistan, Laos, Nepal, and India). Field trials in these three continents have shown a reduction of risk of diarrhea on the order of 50% following the implementation of SWS projects. The SWS has been used as an emergency response tool for earthquakes and flooding in Bolivia in 1997 and 1998, cholera epidemics in Zambia in 1999 and Madagascar in 2000, and flooding in Kenya and Malawi in 2002.

The SWS is also used as an entry point into households for the promotion and implementation of other health-oriented interventions such as hand washing and sanitation. Other SWS applications include improving street vendor hygiene in beverage preparation and prevention of contamination of fluids used in re-hydrating cholera victims.

- **Project Launch in Malawi, November 2002:** PSI launched a national SWS project in Malawi, giving the disinfection solution the brand name WaterGuard. After severe flooding, WaterGuard was delivered to affected populations for use in the prevention of waterborne diseases. In January 2003, over 58,000 bottles were sold, greatly surpassing initial sales projections.
- **Study of SWS for AIDS patients in Uganda, November 2002:** Preliminary results of a CDC study in Uganda suggest a reduction of risk of diarrhea of 30 percent among people with AIDS who use the SWS. A report will be prepared and submitted for publication in June 2003.

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Afghan children, such as this girl collecting water from a polluted surface water source, will benefit from the SWS project, scheduled to begin in May 2003



Several field workers in Uganda practicing how to teach people to use the SWS for the prevention of diarrhea.



- **Madagascar Project Expansion, November 2002:** CDC and CARE conducted an evaluation of the SWS expansion to the rural east coast of Madagascar. CARE trained a group of entrepreneurs representing 290 village clusters to promote safe water, hygiene, sanitation, and malaria prevention, and to sell Sur'Eau (the branded disinfectant promoted by PSI) and the CDC 20-liter safe storage vessel. Many of these 290 entrepreneurs are able to make a living selling these and other socially marketed items. In some villages, usage rates of Sur'Eau are over 60%. The evaluation demonstrated a reduction of risk of diarrhea of 67% among people using the disinfectant. PSI predicts sales of 850,000 bottles of Sur'Eau during 2003.
- **Afghanistan Project Design, January 2003:** PSI began preparation for the launch of a SWS project in Afghanistan. This USAID-funded project is on target for a May 2003 launch. CDC experts will travel to Kabul in April to provide technical assistance for the final stages of preparation. The World Bank has provided funding for CDC, UNICEF, and other partners to conduct an evaluation to compare the effectiveness of protected wells and the SWS in preventing diarrheal diseases. This study will have important implications for future investments in water.
- **National Expansion in Kenya, January 2003:** PSI obtained seed funding to expand the SWS project in Kenya to a national level. The launch of the national campaign will take place in May 2003.
- **New Program in Nigeria, February 2003:** A CDC consultant traveled to Abuja, Nigeria to lay the groundwork for a SWS project that will commence late in 2003 or in 2004.
- **Exploring Further Expansion at the Forum:** CDC, PSI, and UNICEF will join together at the Third World Water Forum to discuss progress and opportunities to expand or initiate SWS projects in 20 or more countries.
- **Future Expansion in Asia, April 2003:** CDC will join with WHO, PSI, UNICEF, NGOs, and Ministries in India, Nepal, Bangladesh, and Myanmar to organize an inter-country SWS project that could become a model for regional expansion in other parts of the world.

Resources: U.S. government contributions have included financial support (from USAID and the Centers for Disease Control and Prevention) and technical support (from the Centers for Disease Control and Prevention). International organizations (UNICEF and WHO) and civil society groups and international organizations have also provided financial support to projects in several countries.

Partners

Governments: Ministries of Health in Bolivia, Ecuador, Peru, Zambia, Madagascar, Kenya, Uganda, Tanzania, Rwanda, Malawi, India, Laos, and Nepal, international development agencies in Japan and the United States. **International**

Organizations: UNICEF, WHO, World Bank, Inter-American Development Bank.

Private Sector: Procter and Gamble Company, Equipment and Systems Engineering, Inc. (USA), Exceltec International Corp. (USA), Jet Chemicals, Ltd. (Kenya), SFOI (Madagascar), Sulforwanda Industries (Rwanda), Max Chemicals (India), Triveni Plastics (India), Nampak (South Africa), Magric Uganda, Ltd., Tarmal Industries, Ltd. (Tanzania), Simba Plastics Co., Ltd. (Tanzania), Kleemkem Ltd. (Malawi), Enterprise Plastics (Malawi), Plamat Cia. (Bolivia). **Civil Society:** CARE, Project Concern International, PSI, Plan International, Andean Rural Health Care, Rotary International, Individual Rotary Clubs, HOPE (Pakistan). **Universities:** Emory University School of Public Health, University of North Carolina School of Public Health, Medical University of South Carolina, Universidad Mayor de San Andrés (Bolivia), Massachusetts Institute of Technology.